

**REMARKS**

Applicants acknowledge with appreciation Examiner Audet's time and consideration of the present application during the telephonic interview of August 12, 2010 with the undersigned.

During the interview, it was explained that Applicant intends to define the fusion structure as comprising/consisting of SEQ ID NO 5, which corresponds to MS2CP-HA TAG-PEP58X. Examiner Audet suggested, for clarity, referring to SEQ ID NO 5 as a fusion protein, rather than a fusion polypeptide, as MS2CP-HA TAG-PEP58X itself includes the RNA binding protein MS2CP. That is, the term polypeptide may suggest a structure smaller than a protein. Also for clarity, Examiner Audet proposed removing the description of the separate components of the fusion protein as the language is superfluous in view of the amendment.

This application has been amended in a manner consistent with the interview and is believed to place the application in condition for allowance, based on the kind suggestions discussed during the interview.

**Status of the Claims**

Claims 7 and 41 are amended to recite the fusion polypeptide comprises and consists of SEQ ID NO 5, respectively.

Support for the amendment to the claims may be found, for example, at paragraphs [0105], [0158], and [0124] and Table 3 of the published application. Also, in light of the fact that the

term polypeptide may suggest a structure smaller than a protein, the claims now refer to a fusion protein. Also, the description of the separate components of the fusion protein has been removed.

Claims 7, 37, 41 and 42 remain pending.

**Claim Rejections-35 USC §112**

Claims 7, 37, 41 and 42 were rejected under 35 U.S.C. §112, first paragraph, for not complying with the written description requirement. This rejection is respectfully traversed for the reasons below.

Claims 7 and 41 have been amended in a manner which is described in the application, e.g., paragraphs [0105], [0158], and [0124] as indicated in the Official Action and Table 3 ([0246] of the published application). That is, the fusion protein comprises or consists of SEQ ID NO 5.

The claimed fusion protein, or SEQ ID NO 5, is also referred to as MS2CP-HA TAG-PEP58X. As evidenced by the two documents provided in the Appendix (Document 1 and Document 2), the claimed fusion protein is sufficiently described in the written specification.

The amino acid sequence MS2CP was already known prior to the present invention, as evidenced by the information provided by the National Center for Biotechnology Information

website for "coat protein [Enterobacteria phage MS2]":  
[http://www.ncbi.nlm.nih.gov/protein/NP\\_040648.1](http://www.ncbi.nlm.nih.gov/protein/NP_040648.1) (Document 1).

As evidenced by the sequence listing appended to the instant patent application, and more particularly the excerpt thereof included with this amendment (Document 2), the amino acid sequence of SEQ ID NO 5, which is referred to in the amended claims, is disclosed.

In Document 2, the applicant has identified each of the essential amino acid sequences that are contained in the claimed fusion protein of SEQ ID NO 5, namely (i) the HA peptide, (ii) the PEP58X peptide and (iii) the MS2CP protein, which are identified between brackets.

The HA peptide consists of the peptide of SEQ ID NO 11 (see Table 3 on [0246] of the published application).

The PEP58X peptide consists of the peptide of SEQ ID NO 1 (see Table 3 on [0246] of the published application).

The MS2CP protein, which was known prior to the instant invention, is disclosed, as discussed above, in Document 1.

As it can be seen from the structure of SEQ ID NO 5, the HA, PEP58X and MS2CP moieties are not directly bound, one to another, but instead are separated by spacer sequences of one amino acid in length (between HA and PEP58X) or three amino acids in length (between PEP58X and MS2CP).

Also, the fusion protein of SEQ ID NO 5 contains N-terminal and C-terminal amino acid stretches.

This is fully supported by the specification, since it is clearly disclosed that the various functional moieties of a fusion protein according to the invention may be separated from each other in the fusion protein by a spacer peptide (see [0115] to [0121] of the published application).

Moreover, the functionality, i.e., "specifically inhibiting the translation of a target polynucleotide of interest" is described in Figure 7 as discussed in Examples 3 and 4, which begin after [0233] of the published application.

Therefore, the pending claims meet the written description requirement, and withdrawal of the rejection is respectfully requested.

### **Conclusion**

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any

additional fees required under 37 C.F.R. § 1.16 or under 37  
C.F.R. § 1.17.

Respectfully submitted,

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**APPENDIX:**

The Appendix includes the following item(s):

- Document 1: Search results from the National Center for Biotechnology Information website for "coat protein [Enterobacteria phage MS2]":

[http://www.ncbi.nlm.nih.gov/protein/NP\\_040648.1](http://www.ncbi.nlm.nih.gov/protein/NP_040648.1)

- Document 2: Marked-up excerpt from the present application's sequence listing.